ON SOME MAMMALS COLLECTED BY MR. ALBERT MEEK ON FERGUSSON ISLAND, D'ENTRECASTEAUX GROUP.

By OLDFIELD THOMAS.

THE mammals on which the following notes are based were obtained by Mr. Albert Meek, when collecting on Fergusson Island, the largest of the D'Entrecasteaux group, a locality whence very few mammals have ever previously been brought. Both for this reason and on account of their inherent interest, they deserve a connected notice. Twelve species are represented, of which three prove to need new names, specific or subspecific.

1. **Pteropus hypomelanus** Temm.

One specimen.

2. **Cephalotes peronii** Geoff.

One specimen.

3. **Uronycteris* major** Dobs.

Three specimens.

A skull of this species was obtained on Goodenough Island, also in the D'Entrecasteaux group, by Mr. Basil Thomson in 1889, and presented by him to the British Museum.

4. **Carponycteris* crassa** sp. nov.

One specimen.

Size equalling or exceeding that of *C. minimus*. Form stouter, but proportions of head and structure of muzzle as in *C. australis*. General colour dull fawn above and below, without any rufous or fulvous suffusion. Interfemoral membrane and calcars practically obsolete, wholly buried in the thick fur of the upper and inner sides of the lower leg; the broadest part of the membrane, just inside the knee, is less than 3 mm. broad, while the almost unrecognisable calcar is at most about 1·5 mm. long.

Skull comparatively broad and stoutly built; the postorbital processes well developed. The lower jaw especially stout and strong.

Upper incisors large and long, subequal, placed in an even curved series; the median pair nearer to each other than to the outer ones. Cheek-teeth very uniform in size and form, the anterior premolar scarcely smaller than the others, and the diastema behind it not or scarcely longer than those separating the other teeth. In the lower jaw the same description applies exactly, except that the median incisors are much smaller than the outer ones, and almost touch each other.

Dimensions of the type, an adult *male* in spirit:—Head and body 70 mm.; ear 13·5; forearm 47; lower leg 19·5. Skull, basal length 24·5; greatest breadth 17; interorbital breadth 6·1; tip to tip of postorbital processes 12·2; greatest height of lower jaw from top of coronoid 9.

* Lydekker; replacing *Harpyia* and *Macroglossus*, both preoccupied.

Although superficially very like the other two species, *C. crassa* may be readily recognised by its reduced interfemoral membrane and calcars, and by the different proportions of its incisors and anterior premolars.

Type in the British Museum. No. 95.5.8.2.

5. **Vesperugo papuanus** Pet. & Dor.

Several specimens.

6. **Chiruromys pulcher** sp. nov.

Rather larger than *Ch. forbesi*; proportions as in that species. Fur longer and softer, the hairs in the middle of the back about 15 to 16 mm. in length. General colour above soft rufous fawn, reddening posteriorly into deep ferruginous. An ill-defined blackish band running from the sides of the muzzle backwards to surround the eye; no lighter spot behind the eye. Ears naked. Lips whitish. Under surface bright reddish, the hairs whiter towards their bases. Upper surface of hands and feet whitish. Tail clothed with the woolly rufous body fur for nearly an inch, the remainder brown, scaly, and practically naked as in *Ch. forbesi*; the smooth prehensile terminal portion just as in the older-known species. Palate-ridges and mammae as in *Ch. forbesi*.

Skull on the whole fairly similar to that of *Ch. forbesi*. The peculiar right-angled spring of the anterior zygoma root is, however, less strongly marked; the upper profile is more bowed, an effect which is increased by the supraorbital edges being more developed vertically. Palate ending opposite the middle of, instead of behind, the last molar.

Molars rather broader and heavier than in *Ch. forbesi*; their pattern on the whole very similar, but there appears to be a tendency to an even greater crenulation of the cusps and ridges.

Dimensions of the type, an adult *male* in spirit:—Head and body 153 mm.; tail 225; hind-foot 33·7; ear 17·3 × 12·1. Skull, basal length 34·5; greatest breadth 22·5; nasals, length 12; interorbital breadth 6; interparietal, length 4·7, breadth 11·1; palate, length 18·5; palatal foramina 5; diastema 11·2; length of upper molar series 5·7.

Type in the *British Museum*. B. M. No. 95.5.8.5. *Paratype* in the *Tring Museum*.

This very beautifully coloured Rat is a most interesting discovery, as no representative of the genus *Chiruromys* has been met with, so far as I know, since my description of the genus and typical species seven years ago.* That typical species, *Ch. forbesi*, came from Sogere in the Owen Stanley Mountains, S.E. New Guinea, and the discovery of a different but allied species in the D'Entrecasteaux Islands is therefore not unnatural.

The essential characters of the genus, its peculiar molar-structure, and its prehensile tail have been fully dealt with in the original description, and it need only here be said that *Ch. pulcher* agrees with *Ch. forbesi* in every character of any importance, while its very different coloration shows that as a species it is entirely distinct.

7. **Mus** sp.

One immature specimen.

Belongs to the *M. ephippium* group, but is too young for determination.

* *P. Z. S.*, 1888, p. 237, figs. 1 and 2 (skull, teeth, and tail).

8. Uromys macropus Gr. (?).

One young specimen.

From the entirely unworn state of its incisors, and the fact that none of its molars had cut the gum, it is probable that this specimen was still suckling. Its determination is of course most doubtful, but its palate-ridges, tail-coloration, and size appear to be much as in *U. macropus*. On the other hand, in the peculiar structure of its anterior palate it shows some resemblance to *Conilurus hirsutus* Gould.

9. Petaurus breviceps Waterh.

Ten specimens.

10. Dactylopsila trivirgata Gray.

One specimen.

11. Phalanger orientalis intercastellanus subsp. nov.

Four nearly or quite adult specimens, and six foetuses.

Before describing this subspecies it may first be observed that I now believe I was wrong in stating * that the skull of *Ph. orientalis breviceps* only differed from that of the typical variety by its smaller size, as there are several other differential characters, among which the direction and development of the supraorbital ridges are specially noteworthy. In *Ph. breviceps* (as, raising it to the rank of a species, I now think it should be called) the ridges are practically alike in the two sexes, remaining in both parallel throughout life; their development is vertical, not outwards. Such rudimentary postorbital processes as are present do not overhang the orbits proper, but only the anterior part of the sides of the brain-case. On the other hand, in *Ph. orientalis* there is a marked difference between the sexes, the ridges of the *female* being comparatively weak and practically parallel, while those of the *male* develop outwards and upwards into strong triangular projections overhanging the orbits and corresponding to postorbital processes. In the lower jaw the coronoid process of *Ph. breviceps* is developed backwards into a sharp curved projection, longer and more pointed than in *Ph. orientalis*.

Bearing these facts in mind, the D'Entrecasteaux representative of the group may be briefly diagnosed as follows:—

Colour and character of fur as in ordinary grey examples of *Ph. o. typicus*. Dorsal streak present. Size scarcely greater than in *Ph. breviceps*. Lower jaw and structure of supraorbital region as in *typicus* (at least so far as the *male* is concerned). Middle† upper premolar obsolete or deciduous. For proportions of teeth see the measurements given below, as compared with those in the Catalogue.

* *Cat. Mars. B. M.*, p. 204. 1888. In the synonymy given of this form, the name "*Cuscus albus*" is rejected because antedated by *Phalangista alba* E. Geoff., *Cat. Mus.*, p. 148, 1803. This latter work, however, is now known to be merely the proof of a book which was never published, and is therefore quite invalid, and should not be quoted. Geoffrey's Museum name *alba* for the albino variety of the grey *Cuscus* proves however to have been validly published by Desmarest (*Mamm.*, I., p. 267, 1820) in the form "*Phalangista rufa* var. *alba* Geoff.," so that the name *breviceps* remains unaffected by Lesson's use of "*albus*" for the New Ireland *Cuscus*.

† In view of the entire revolution that has taken place in our ideas of dental origin and homologies during the last seven years, it seems better for systematic purposes to use the terms "anterior," "middle," and "posterior" for the three Marsupial premolars, without attempting to homologise them individually with those of Placental Mammals.